AMENDMENTS TO THE CLAIMS:

Please amend claims 4-7, 9-10, 17, and 19-24, as follows and cancel claims 1-3 without prejudice.

1.-3. (Cancelled)

4. (Currently Amended) <u>A method of communication between a first node and a second node, a plurality of different channels being provided between said first and second node, said method comprising the steps of:</u>

<u>calculating an integrity output, said integrity output being calculated from a plurality of input values, some of said input values being the same for said different channels, at least one of said input values being arranged to comprise information relating to the identity of said channel, each channel having a different identity and at least one of said input values are identical for said different channels; and</u>

<u>transmitting information relating to the integrity output from one of said nodes to the other,</u>

~~A method as claimed in claim 3,~~ wherein said information relating to the identity of the channel is combined with only one other input value.

5. (Currently Amended) <u>A method of communication between a first node and a second node, a plurality of different channels being provided between said first and second node, said method comprising the steps of:</u>

<u>calculating an integrity output, said integrity output being calculated from a plurality of input values, some of said input values being the same for said different</u>

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channels, at least one of said input values being arranged to comprise information relating to the identity of said channel, each channel having a different identity and at least one of said input values are identical for said different channels;

and transmitting information relating to the integrity output from one of said nodes to the other,

wherein said information relating to the identity of the channel is combined with at least one other input value, and

~~A method as claimed in claim 3,~~ wherein said combined input value input comprises a first part allocated to the identity of the bearer and a second part allocated to the other information provided by said value.

6. (Currently Amended) A method as claimed in claim ~~14~~, wherein said values input to an algorithm comprise one or more of the following values:

an integrity key; a direction value, a fresh value, a message value and a count value.

7. (Currently Amended) A method of communication between a first node and a second node, a plurality of different channels being provided between said first and second node, said method comprising the steps of:

calculating an integrity output, said integrity output being calculated from a plurality of input values, some of said input values being the same for said different channels, at least one of said input values being arranged to comprise information relating

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to the identity of said channel, each channel having a different identity and at least one of said input values are identical for said different channels; and

transmitting information relating to the integrity output from one of said nodes to the other,

wherein said information relating to the identity of the channel is combined with at least one other input value, and

~~A method as claimed in claim 3,~~ wherein said information relating to the identity of the channel is combined with one or more of the following values input to an algorithm: a fresh value; a count value; and integrity key; a direction value and a message value.

8. (Original) A method as claimed in claim 7, wherein said message value is sent from one node to another without the channel identification information.

9. (Currently Amended) A method as claimed in claim ~~1~~ 4, wherein the output ~~to~~ of an integrity algorithm is sent from one node to another.

10. (Currently Amended) A method as claimed in claim ~~1~~ 4, wherein communication between said first and second nodes is via a wireless connection.

11. (Original) A method as claimed in claim 10, wherein one of said first and second nodes is user equipment.

12. (Original) A method as claimed in claim 12, wherein said user equipment is a mobile station.

13. (Previously Presented) A method as claimed in claim 10, wherein one of said first and second nodes is a radio network controller.

14. (Previously Presented) A method as claimed in claim 10, wherein one of said first and second nodes is a node B.

15. (Currently Amended) A method as claimed in claim ~~14~~, wherein said communication channels comprise a radio bearer.

16. (Original) A method as claimed in claim 15, wherein said radio bearer is a signaling radio bearer.

17. (Currently Amended) A method as claimed in claim ~~1~~_4_, wherein said input values are input to an algorithm for calculation said output.

18. (Previously Presented) A method as claimed in claim 6, wherein the same integrity key is used for the different channels.

19. (Currently Amended) A method for carrying out an integrity check for ~~an~~ system comprising a first node and a second node, a plurality of communication channels being provided between said first node and said second node, said method comprising the step of calculating an integrity output using a plurality of values, at least one of said values being arranged to comprise information relating to the identity of said channel, each having a different identity and at least one of said values being identical for said different channels~~,~~_._

wherein said information relating to the identity of the channel is combined with only one other input value.

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20. (Currently Amended) A method of communication between a first node and a second node, a plurality of different channels being provided between said first and second node, said method comprising the steps of:

calculating an integrity output using a plurality of values, one of said values being an integrity key, each of said channels having a different integrity key; and

transmitting information relating to the output of ~~said~~ an integrity ~~algorithms~~ from ~~on~~ one of said nodes to the other~~,~~.

wherein said information relating to the identity of the channel is combined with only one other input value.

21. (Currently Amended) A method of communication between a first node and a second node, a plurality of different channels being provided between said first and second node, said method comprising:

triggering an authentication procedure; and

calculating a desired number of integrity parameters by the authentication procedure~~,~~.

wherein said information relating to the identity of the channel is combined with only one other input value.

22. (Currently Amended) A node, said node for use in a system comprising a said node and a further node, a plurality of different channels being provided between said nodes, said node comprising means for calculating an integrity output, said integrity output being calculated from a plurality of values, at least one of said values being

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arranged to comprise information relating to the identity of said values being arranged to comprise information relating to the identity of said channel, each channel having a different identity and at least one of said values being identical for said different channels, at least one of said values being arranged to comprise information relating to the identity of said channel, each channel having a different identity,.

wherein said information relating to the identity of the channel is combined with only one other input value.

23. (Currently Amended) A node, said node for use in a system comprising said node and a further node, a plurality of different channels being provide between said nodes, said node comprising means for calculating an integrity output, said integrity output being calculated from a plurality of values, at least one of said values being arranged to comprise information relating to the identity of said channel, each channel having a different identity and at least one of said values being identical for said different channels; and means for comparing information relating to the integrity output calculated by said node with a value calculated by the further node,.

wherein said information relating to the identity of the channel is combined with only one other input value.

24. (Currently Amended) An algorithm for calculating an integrity output for use in a system comprising a node and a further node, a plurality of different channels being provided between said nodes, said algorithm comprising means for calculating an integrity output, said integrity output being calculated from a plurality of values, at least

on of said values being arranged to comprise information relating to the identity of said channel, each channel having a different identity and at least one of said values being identical for said different channels,.

wherein said information relating to the identity of the channel is combined with at least one other input value.